Reverse, 5'gatcttcctgtccctcgagc3';(SEQ ID NO: 19)

Hybridization, 5'aaccatgaggaggaaatcagtacgctgagg3'.(SEQ ID NO: 20)

Human glucagon: Forward, 5'atctggactccaggcgtgcc3';(SEQ ID NO: 21)

Reverse, 5'agcaatgaattccttggcag3'; (SEQ ID NO: 22)

Hybridization, 5'cacgatgaatttgagagacatgctgaaggg3'; (SEQ ID NO: 23)--

a10

Please replace the paragraph on page 53, lines 22 through 28 continuing to page 54, lines 1 through 3 with the following replacement paragraph:

--Insulin and glucagon concentrations in culture media were determined by ultra sensitive radioimmunoassay kits purchased from Linco Research Inc. and DPC Inc., respectively. The antisera supplied in the respective kits are guinea pig anti-human insulin and rabbit anti-human glucagon. GLP-1 secretion was measured with an anti-human GLP-1(7-36)amide rabbit polyclonal antiserum raised by immunization of a rabbit with a synthetic peptide CFIAWLVKGR (SEQ ID NO: 54) amide conjugated to keyhole limpet hemocyanin. The antiserum is highly specific for the detection of GLP-1(7-36)amide and only weakly detects proglucagon. The sensitivity levels for these assays are 6 pg/mL, 13 pg/mL and 10.2 pg/mL, respectively.--

a11

IN THE CLAIMS:

Please replace claims 25-26, 28 and 68-69, and 72 with the following claims.

25. (Amended) A method of treating a patient with diabetes mellitus, comprising the steps of:

(a) isolating a nestin-positive pancreatic stem cell from a pancreatic islet of a donor;

a12

(b) expanding the stem cell to produce a progenitor cell;

(c) differentiating the progenitor cell in culture to form pseudo-islet like aggregates; and

(d) transferring the pseudo-islet like aggregates into the patient,

wherein the patient does not serve as the donor for said stem cells of step (a), and wherein said transferring step (d) treats diabetes mellitus.

a12

26.(Amended) The method of claim 25, wherein the patient is a human and the donor for said stem cells of step (a) is a non-human mammal.

28. (Amended) The method of claim 25, wherein the step of expanding is performed in the presence of an agent selected from the group consisting of Epidermal Growth Factor (EGF), basic Fibroblast Growth Factor-2 (bFGF-2), high glucose, Keratinocyte Growth Factor (KGF),

a13

Hepatocyte Growth Factor/Scatter Factor (HGF/SF), Glucagon-like-Peptide-1 (GLP-1), exendin-4, Islet/Duodenum Homeobox-1 (IDX-1), a nucleic acid molecule encoding Islet/Duodenum Homeobox-1 (IDX-1), betacellulin, activin A, Transforming Growth Factor-β (TGF-β), and combinations thereof.

68. (Amended) The method of claim 67, wherein the mammal serves as the donor for said stem cells of step (a).

a14

69. (Amended) The method of claim 67, wherein the mammal does not serve as the donor for said stem cells of step (a).

72. The method of claim 67, wherein the step of expanding is performed in the presence of an agent selected from the group consisting of Epidermal Growth Factor (EGF), basic Fibroblast Growth Factor-2 (bFGF-2), high glucose, Keratinocyte Growth Factor (KGF), Hepatocyte

a15

Growth Factor/Scatter Factor (HGF/SF), Glucagon-like-Peptide-1 (GLP-1), exendin-4, Islet/Duodenum Homeobox-1 (IDX-1), a nucleic acid molecule encoding Islet/Duodenum Homeobox-1 (IDX-1), betacellulin, activin A, Transforming Growth Factor-β (TGF-β), and combinations thereof.